INSTITUTE: National Institute of Arthritis and Musculoskeletal and Skin Diseases

STUDY NUMBER: 91-AR-0196 PRINCIPAL INVESTIGATOR: James D. Katz, M.D.

STUDY TITLE: Studies on the Natural History and Pathogenesis of Polymyositis, Dermatomyositis, and Related Diseases

Continuing Review Approved by the IRB on 01/06/15
Amendment Approved by the IRB on 07/29/15 (AA) Date Posted to Web: 07/31/15
Patient

INTRODUCTION

We invite you to take part in a research study at the National Institutes of Health (NIH).

First, we want you to know that:

Taking part in NIH research is entirely voluntary.

You may choose not to take part, or you may withdraw from the study at any time. In either case, you will not lose any benefits to which you are otherwise entitled. However, to receive care at the NIH, you must be taking part in a study or be under evaluation for study participation.

You may receive no benefit from taking part. The research may give us knowledge that may help people in the future.

Second, some people have personal, religious or ethical beliefs that may limit the kinds of medical or research treatments they would want to receive (such as blood transfusions). If you have such beliefs, please discuss them with your NIH doctors or research team before you agree to the study.

Now we will describe this research study. Before you decide to take part, please take as much time as you need to ask any questions and discuss this study with anyone at NIH, or with family, friends or your personal physician or other health professional.

You are being asked to participate in a study designed to advance our knowledge about diseases with inflammation in the muscles. We are trying to learn more about what may cause them; whether the likelihood of getting the disease is inherited or acquired; what signs, symptoms, and tests can predict response to therapy; and how medicines used to treat the disease may act.

The evaluation will consist of a history and physical examination, and special tests will be performed on your blood. The hazards of testing your blood primarily involve the pain of the needle puncturing the skin and the risk of getting a bruise. Very rarely, an infection may occur. Depending upon your condition, to assist us in accurately diagnosing your illness and planning the best treatment, or to obtain information that will advance our research on your illness, other procedures may be advised. If you are eligible for treatment in a protocol at the NIH, we will discuss that with you in detail. If you are not, we will advise you and your physician of our recommendation for further treatment under your physician's care.

HIV Testing at the NIH in Research:

As part of this study, we may test you for infection with the human immunodeficiency virus (HIV), the virus that causes AIDS. If you are infected with HIV you will still be able to participate in this study. We will tell you what the results mean, how to find care, how to avoid infecting others, how we report HIV infection, and the importance of informing your partners at possible risk because of your HIV infection.

You may be asked to undergo some or all of the following procedures on one or more occasions. For those procedures with an asterisk (*) beside the number, you will be given a thorough explanation and asked to sign a separate consent form on each occasion.

1*) Muscle biopsy. A surgeon experienced in muscle biopsies will perform the biopsy. The surface of the skin over the affected muscle, an area the size of a quarter, will be numbed by injecting a medication called lidocaine. A small incision (about one quarter inch long) will be made and several small pieces of the muscle (each the size of a pea) will be removed. If the biopsy is done in the operating room you may be given medication by vein just before the biopsy to decrease your pain and make you less aware of the procedure. This will require you to not eat or drink after midnight on the night before the biopsy. In this situation, an anesthesiologist would consult with you before the muscle biopsy procedure to determine the best medications to be used for your particular situation. After the biopsy is taken, antibacterial ointment (to reduce the risk of infection) and steri-strips (small tape-like band aids) or dermabond (a glue-like material) will be applied to the muscle biopsy site and this will be covered with a bandage and an elastic wrap. An ice pack will be applied after the biopsy. You will be given instructions about how to care for the biopsy site.

Discomforts and Risks: Discomfort during the procedure will be minimized by the use of a local anesthetic. The biopsy site may be tender for several days. Risks include the rare complications of local bleeding or infection. A small scar will remain permanently at the biopsy site.

2*) Electromyography (EMG). This measures the electrical activity of the muscles. It involves the insertion of a needle into a muscle, usually through the skin, to record its electrical activity.

Discomforts and Risks: You may experience pain at the site of needle entry. There is a slight possibility of infection or bleeding.

3*) Magnetic resonance imaging (MRI). This is a sensitive diagnostic tool that uses a strong magnetic field and radio waves to show changes in tissue. There is no radiation risk. You will lie on a table in a space enclosed by a metal cylinder (the scanner itself). The time required to stay in the cylinder will be about 20-30 minutes. During part of the time, you will be asked to lie very still.

Discomforts and Risks: Patients are at risk for injury from MRI if they have metal objects in their bodies such as a pacemaker, aneurysm clips (metal clips on the wall of a large artery), metallic prostheses, cochlear implants, or shrapnel fragments. Welders and metal workers are also at risk for eye injury because of unsuspected tiny metal fragments there. Individuals with fear of confined spaces may become anxious during MRI. You will hear a thumping noise created by the radio waves forming the images. You will feel no pain, but you may find the noise and the closed-in space discomforting. You will be observed at all times by the operators and will be able to speak to them; you can be moved out of the machine at your request.

4) Standardized muscle testing by a physiotherapist, to see how strong you are;

5*) Swallowing studies with ultrasound and X-rays (barium swallow), to check your speaking and swallowing abilities;

6) Pulmonary function test (PFT), to check your breathing, and, if necessary, chest X-rays and other tests;

7) Electrocardiogram (EKG), and, if necessary, other tests to measure your heart;

8) PET/MRI: This is a combined study of MRI and PET scanning done at the same time. We hope this new technique will allow us to better diagnose the type of muscle disease patients have, prevent future patients from having to undergo muscle biopsies, better understand the severity of patients' disease, and to try and find if myositis affects parts of the body besides muscle. This study may lead to no direct benefit for you. The potential benefits of this scan are that it may allow us to better understand the places your muscle disease is active, how active your disease is, and the type of disease you have. In addition this research may aid in giving future patients with muscle disease the ability to have better guided treatment and to receive a diagnosis without biopsy.

This scan is very similar to the MRI, but in addition you will be injected with a radioactive agent, FDG, by intravenous line. After the placement of the intravenous line and injection of the FDG you will be asked to sit quietly in a room for approximately 1 hour. Then you will be asked to lay flat on a raised bed looking up toward the ceiling. Once you are resting on the bed you will notice it will move periodically through the PET/MRI machine, which is a large cylinder. You will need to rest in a still position so that we can take the proper images of you. You will hear periodic soft banging noises while the scan is happening. These noises are the magnets moving in the cylinder. The scan should take approximately 2 hours. During the scan you will be able to talk to the individual operating the PET/MRI machine and will have an emergency button you can press to stop the machine.

Discomforts and Risks: This test includes all of the discomforts and risks of a normal MRI. In addition it involves the administration of a radioactive intravenous agent. The major risks of the intravenous line placement are bleeding, infection, bruising, and local discomfort.

This study involves exposure to radiation from 1 PET/MRI scan of 10 mCi. This radiation exposure is not required for your medical care and is for research purposes only. The amount of radiation you will receive in this study is 0.63 rem, which is below the guideline of 5 rem per year allowed for research subjects by the NIH Radiation Safety Committee. The average person in the United States receives a radiation exposure of 0.3 rem per year from natural sources, such as the sun, outer space, and the earth's air and soil. If you would like more information about radiation, please ask the investigator for a copy of the pamphlet, An Introduction to Radiation for NIH Research Subjects.

While there is no direct evidence that the amount of exposure received from participating in this study is harmful, there is indirect evidence it may not be completely safe. There may be a very slight increase in the risk of cancer.

Please tell your doctor if you have had any radiation exposure in the past year, either from other research studies or from medical tests or care, so we can make sure that you will not receive too much radiation. Radiation exposure includes x-rays taken in radiology departments, cardiac catheterization, and fluoroscopy as well as nuclear medicine scans in which radioactive materials were injected into your body.

If you are pregnant or breast-feeding you will not be permitted to participate in this part of the research study. It is best to avoid radiation exposure to unborn or nursing infants since they are more sensitive to radiation than adults.

If we detect an abnormality on this test we will notify you and your physician about it so that further care can be provided by your physician. If you do not want your physician notified of any abnormalities please request this in writing and we will not notify your physician of any findings.

The PET/MRI scan is completely voluntary. You may decline to have the scan at any time without affecting your participation in the other parts of this study or any other NIH study. This test will only be performed in 25 patients.

9.) MR guided muscle biopsy: With the Department of Radiology, we are attempting to improve the diagnostic accuracy and the usefulness of muscle biopsy, and to develop methods that will allow better assessment of muscle disease using MRI instead of muscle biopsy in some circumstances. For patients with Acid Maltase Deficiency, it may be possible to measure the amount of glycogen in the muscle tissue using MRI instead of biopsy. In order to develop this procedure, we are carrying out research to compare the findings on MRI scanning of muscle with small biopsy samples taken from parts of the muscle, which are identified with the MRI scanner.

This procedure is done in the MR scanner room. The involved muscles, usually the thigh muscles, are identified and localized using MRI. After applying local anesthetic to numb the skin, a one-half inch long incision is made in the skin at the biopsy site. MRI will then be used to guide the biopsy needle, which is about the size of a pencil lead, to the affected muscle and a small piece of the muscle (a biopsy) is removed. Sometimes more than one biopsy is required to get a sufficient sample. After the needle is removed, the skin is closed with self-absorbing stitches.

Discomforts and risks. The biopsy procedure may be associated with some pain or a pressure sensation, and there may be a small scar at the site of the incision. Risks include the rare complication of local bleeding or infection.

For all of these procedures, you will be consulted in advance, given full information, and asked to approve the specific plan. If the procedure is being done for the purpose of research, you will be told. If you do not approve, the procedure will not be done. Pregnancy tests are done if radiation exposure is anticipated, such as a chest x-ray in a pre-menopausal woman.

What will happen to the samples and information that are collected during this study?

Blood samples (serum, plasma, and white blood cells), muscle specimens, and any other material you donate may be used for laboratory research studies, possibly including tests for genetic markers which correlate with your disease, and those specimens will be labeled with your name for reference purposes. On occasion, a coded serum specimen without your name on it may be sent to an outside laboratory for diagnostic tests. That coded specimen may also be tested for other antibodies for research purposes by that laboratory, but your name will not be sent to that laboratory. We will inform you and your physician of any genetic findings that would be helpful to you or your family, and will help to arrange for genetic counseling if that is needed. If your illness appears to be inherited, we may research your DNA by SNP analysis. SNP stands for Single Nucleotide Polymorphism and is a research method to learn where a particular gene may be located in the chromosomes. If we plan other genetic tests on that sample we will inform you and request that you sign a new consent form that provides more details of the testing. We will perform no other DNA studies on it in our laboratory without obtaining your consent. We may provide a sample of the DNA to another laboratory, but only after removing your name and any marking that could identify you in any way. The information obtained in other laboratories may provide knowledge that is useful for the analysis of other illnesses. The findings on your sample will not be made available to NIH. By agreeing to participate in this study, you do not waive any rights that you may have regarding access to and disclosure of your records. For further information on those rights, please contact Dr. James D. Katz, at 301-594-0529.

Because we hope to learn how to predict the long-term outcome of your illness, we may write to you or call you in the future to ask about your health. All samples (sera and muscle biopsies) are stored in freezers near our lab or off site in coded vials. The code is kept in the principal investigator's office and will be accessible solely to the principal investigator. These samples 1) may be sent for medically indicated testing, in which case the samples are identified by name to the testing laboratory; 2) they may be studied in our laboratory for research purposes; or 3) they may be sent to other laboratories in coded vials. Both samples and data will be stored indefinitely.

Benefits

The information obtained as a result of the studies should help us to plan therapy for your illness and also to advance our knowledge of your illness to improve therapy for you and other patients in the future.

Conflict of Interest

The National Institutes of Health reviews NIH employees at least yearly for conflicts of interest. The following link contains details on this process http://ethics.od.nih.gov/forms/Protocol-Review-Guide.pdf. You may ask your research team for additional information or a copy of the Protocol Review Guide.

This protocol may have investigators who are not NIH employees. They are expected to comply with their Institution's conflict of interest policies.

OTHER PERTINENT INFORMATION

1. Confidentiality. When results of an NIH research study are reported in medical journals or at scientific meetings, the people who take part are not named and identified. In most cases, the NIH will not release any information about your research involvement without your written permission. However, if you sign a release of information form, for example, for an insurance company, the NIH will give the insurance company information from your medical record. This information might affect (either favorably or unfavorably) the willingness of the insurance company to sell you insurance.

The Federal Privacy Act protects the confidentiality of your NIH medical records. However, you should know that the Act allows release of some information from your medical record without your permission, for example, if it is required by the Food and Drug Administration (FDA), members of Congress, law enforcement officials, or authorized hospital accreditation organizations.

2. Policy Regarding Research-Related Injuries. The Clinical Center will provide short-term medical care for any injury resulting from your participation in research here. In general, no long-term medical care or financial compensation for research-related injuries will be provided by the National Institutes of Health, the Clinical Center, or the Federal Government. However, you have the right to pursue legal remedy if you believe that your injury justifies such action.

3. Payments. The amount of payment to research volunteers is guided by the National Institutes of Health policies. In general, patients are not paid for taking part in research studies at the National Institutes of Health. Reimbursement of travel and subsistence will be offered consistent with NIH guidelines.

4. Problems or Questions. If you have any problems or questions about this study, or about your rights as a research participant, or about any research-related injury, contact the Principal Investigator, James D. Katz, M.D. Building: 10, Room 6F-216F, Telephone: (301) 594-0529.

You may also call the Clinical Center Patient Representative at (301) 496-2626.

5. Consent Document. Please keep a copy of this document in case you want to read it again.

COMPLETE APPROPRIATE ITEM(S) BELOW:

A. Adult Patient's Consent

I have read the explanation about this study and have been given the opportunity to discuss it and to ask questions. I hereby consent to take part in this study.

Signature of Adult Patient/Legal Representative _____ Date _____

Print Name _____

B. Parent's Permission for Minor Patient.

I have read the explanation about this study and have been given the opportunity to discuss it and to ask questions. I hereby give permission for my child to take part in this study.
(Attach NIH 2514-2, Minor's Assent, if applicable.)

Signature of Parent(s)/Guardian _____ Date _____

Print Name _____

C. Child's Verbal Assent (If Applicable)

The information in the above consent was described to my child and my child agrees to participate in the study.

Signature of Parent(s)/Guardian _____ Date _____ Print Name _____

THIS CONSENT DOCUMENT HAS BEEN APPROVED FOR USE FROM JANUARY 6, 2015 THROUGH JANUARY 5, 2016.

Signature of Investigator _____ Date _____

Print Name _____

Signature of Witness _____ Date _____

Print Name _____